

ABSTRACT OF THE DISCLOSURE

A family of sliding vane rotary power devices provides two and four-phase internal combustion engines, as well as serving as pumps and compressors. All of these devices have an improved donut shaped rotor assembly having an integrated axial pump portion, an end shaft, a plurality of radial-directed passages and an equal plurality of sliding vanes in respective slots that are medially guided by cam followers moving in a pair of cam grooves. The devices include an axial pump portion that acts as a supercharger for the four-phase internal combustion engine, a scavenger for the two-phase internal combustion engine, and as an axial pressure inducer when operating as a pump or compressor.